What is claimed is:

1. A method for producing a display panel for display of images, the method comprising the steps of:

opposing a first panel element and a second panel element, each having at least one display layer, with positioning the first and second panel elements relatively to each other (panel-opposing step); and

progressively adhering, after the panel-opposing step, the first and second panel elements from a starting position with an adhesive material (panel-adhering step).

2. The method according to claim 1, wherein the panel-opposing step includes the step of positioning the first panel element and causing a first stage to hold the first panel element and the step of positioning the second panel element and causing a second stage to hold the second panel element.

3. The method according to claim 2, wherein the panel-opposing step further includes the step of supplying the adhesive material to at least one of the first panel element held on the first stage and the second panel element held on

the second stage.

4. The method according to claim 2, wherein the panel-opposing step further includes the step of supplying the adhesive material to at least one of the first panel element held on the first stage and the second panel element held on the second stage and the step of moving at least one of the first stage and the second stage to bring the first and second elements to an opposed position with the adhesive material interposed therebetween.

5. The method according to claim 4, wherein the adhering of the first and second panel elements in the panel-adhering step is carried out by pressing a pressing member against the first stage at the starting position via the first and second panel elements, and moving the first stage relative to the pressing member.

6. The method according to claim 5, wherein the second panel element is separated from the second stage when moving the first stage relative to the pressing member in adhering the first and second panel elements.

7. The method according to claim 2, wherein the panel-adhering step includes the

steps of:

moving at least one of the first and second stages to position the first and second panel elements and to superimpose them over each other (panel-superimposing step);

at least partially separating the first and second panel elements positioned and superimposed over each other (panel-separating step);

supplying the adhesive material between the first and second panel elements thus separated; and

progressively adhering the separated first and second panel elements from the starting point via the adhesive material interposed between them (separated panel-adhering step).

8. The method according to claim 7, wherein in the panel-separating step, the first and second panel elements are separated at least so partially as to reproduce the state that the first and second panel elements are positioned and superimposed.

9. The method according to claim 8, wherein in the panel-separating step, the first and second panel elements are separated while the

first and second panel elements are held as superimposed in the vicinity of the starting position.

10. The method according to claim 9, wherein the first and second panel elements are held as superimposed by use of through-holes each formed in the first and second panel elements, respectively.

11. The method according to claim 8, wherein in the panel-separating step, the first and second panel elements are at least partially separated from each other while the second panel element is held by a holding member having a panel-holding convex curved surface, and, in the separated panel-adhering step, the first and second panel elements are adhered to each other by pressing the second panel element held by the holding member against the first panel element by using the holding member.

12. The method according to claim 1, wherein the adhering of the first and second panel elements in the panel-adhering step is carried out by initially pressing one of the fist and second panel elements against the other element at the starting position, and then

progressively extending a region to be pressed from the starting position.

13. The method according to claim 12, wherein an elastic pad having a pressing convex curved surface is used to press one of the two panel elements against the other element.

14. The method according to claim 13, wherein the elastic pad is formed of an elastic body having an elastic coefficient in the range of 60 kgf/cm^2 to 200 kgf/cm^2.

15. The method according to claim 13, wherein the pressing surface of the elastic pad has a radius of curvature in the range of 2000 mm to 5000 mm.

16. The method according to claim 1, wherein the starting position is located on ends of the first and second panel elements.

17. The method according to claim 1, wherein the starting position is located in the center of the first and second panel elements.

18. The method according to claim 1, wherein the adhering of the first and second panel elements in the panel-adhering step is carried out in an atmosphere of reduced pressure.

19. The method according to claim 18,

wherein the pressure in the atmosphere of reduced pressure is 13 Pa to 14 Pa.

20. A method for producing a display panel for display of images, the method comprising the steps of:

bringing first and second panel elements, each having at least one display layer, to an opposed position (panel-opposing step);

adhering the first and second panel elements with an uncured adhesive material interposed between them (panel-adhering step);

relatively moving the adhered first and second panel elements to position them (panel-positioning step); and

curing the adhesive material after the panel-positioning step (adhesive material-curing step).

21. The method according to claim 20, wherein in the panel-adhering step, the first and second panel elements are adhered to each other progressively from a starting position with the adhesive material interposed between them.

22. The method according to claim 21, wherein the adhesive material is spread in adhering the first and second panel elements.

23. The method according to claim 21, wherein the starting position is located on ends of the first and second panel elements.

24. The method according to claim 20, wherein the adhering of the first and second panel elements in the panel-adhering step is carried out by allowing the second panel element to be held by a panel holding member having a convex curved holding surface, and pressing the second panel element held by the holding member against the first panel element by using the holding member.

25. The method according to claim 20, wherein the panel-opposing step includes the steps of;

positioning the first panel element and causing a first stage to hold the first panel element;

positioning the second panel element and causing a second stage to hold the second panel element; and

moving at least one of the first and second stages to bring the first and second panel elements to a face-to-face position.

26. The method according to claim 20,

wherein in adhering the first and second panel elements in the panel-adhering step, the second panel element is separated from the second stage.

27. The method according to claim 20, wherein the adhesive material is a photo-curing adhesive material which is irradiated with light in the adhesive material-curing step.

28. The method according to claim 20, wherein the panel-adhering step is carried out in an atmosphere of reduced pressure.

29. A method for producing a display panel for display of images comprises the steps of:

supplying an adhesive material to at least one of first and second panel elements;

relatively positioning the first and second panel elements and bringing them to an opposed position;

splicing under pressure the relatively positioned first and second panel elements with the adhesive material under a first condition (first pressure-splicing step); and

splicing under pressure, after the first pressure-splicing step, the first and second panel elements with the adhesive material

under a second condition different from the first condition (second pressure-splicing step).

30. The method according to claim 29, wherein the first condition in the first pressure-splicing step includes a pressure condition to be met in pressure-splicing the two panel elements, and the first pressure-splicing step is carried out under a first pressure; and the second condition in the second pressure-splicing step includes a pressure condition to be met in pressure-splicing the two panel elements, and the second pressure-splicing step is carried out under a second pressure higher than the first pressure.

31. The method according to claim 29, wherein the first condition in the first pressure-splicing step includes a condition of atmospheric pressure around the two panel elements, and the first pressure-splicing step is carried out under a first atmospheric pressure; and the second condition in the second pressure-splicing step includes a condition of atmospheric pressure around the two panel elements, and the second pressure-splicing step is carried out under a second atmospheric pressure.

32. The method according to claim 31, wherein at least one of the first and second atmospheric pressures is in the range of 13 Pa to 40 Pa.

33. The method according to claim 29, wherein the first pressure-splicing step is effected for temporarily adhering the first and second panel elements with the adhesive material, and the second pressure-splicing step is effected for permanently adhering the first and second panel elements with the adhesive material.

34. The method according to claim 29, wherein in the first pressure-splicing step, the two panel elements are initially brought into a contact with each other, while developing the initial contacted area into a pressure-spliced area, and are pressure-spliced all over the entire region in the second pressure-splicing step.

35. A method for producing a display panel for display of images comprises the steps of:

causing a first stage to hold a first panel element;

causing a second stage to hold a second

panel element;

bringing the first and second panel elements held on the first and second stages to an opposed position;

positioning the first and second panel elements relative to each other;

supplying an adhesive material to at least one of the first and second panel elements;

splicing under pressure the positioned first and second panel elements held by the first and second stages via the adhesive material, while the first and second panel elements are pressed as interposed between the first and second stages under a first condition (first pressure-splicing step); and

splicing under pressure, after the first pressure-splicing step, the first and second panel elements with the adhesive material under a second condition different from the first condition while the first and second panel elements are pressed as interposed between the first and second stages (second pressure-splicing step).

36. The method according to claim 35, wherein the first condition in the first

pressure-splicing step includes a pressure condition to be met when the two panel elements are pressure-spliced as interposed between the first and second stages, and the first pressure-splicing step is carried out under a first pressure; and the second condition in the second pressure-splicing step includes a pressure condition to be met when the two panel elements are pressure-spliced as interposed between the first and second stages, and the second pressure-splicing step is carried out under a second pressure higher than the first pressure.

37. The method according to claim 35, wherein the first condition in the first pressure-splicing step includes a condition of atmospheric pressure around the two panel elements, and the first pressure-splicing step is carried out under a first atmospheric pressure; and the second condition in the second pressure-splicing step includes a condition of atmospheric pressure around the two panel elements, and the second pressure-splicing step is carried out under a second atmospheric pressure.

38. The method according to claim 37, wherein at least one of the first and second

atmospheric pressures is in the range of 13 Pa to 40 Pa.

39. The method according to claim 37, wherein in at least one of the first and second pressure-splicing steps, an airtight chamber is formed around the two panel elements by surrounding the first and second panel elements with an elastically deformable ring member for airtight seal and disposing the ring member as interposed, between the first and second stages coming closer to each other, and the foregoing atmospheric pressure around the two panel elements is obtained by exhausting the air from the airtight chamber.

40. The method according to claim 35, wherein the first pressure-splicing step is effected for temporarily adhering the first and second panel elements with the adhesive material, and the second pressure-splicing step is effected for permanently adhering the first and second panel elements with the adhesive material.

41. The method according to claim 35, wherein at least one of the first and second stages has an elastic pad having a panel element-holding surface which is a convex curved face;

wherein in the first pressure-splicing step, the first and second panel elements are contacted initially with the panel element-holding surface of the pad by moving the first and second stages closer to each other, while developing the initially contacted area into a pressure-spliced area in contact with elastically deforming the pad by moving the first and second stages further closer to each other, and in the second pressure-splicing step the two panel elements are spliced as pressed by the elastically deformed pad to adhere each other all over the entire region.

42. The method according to claim 41, wherein the panel element-holding surface of the elastic pad has a radius of curvature in the range of 2000 mm to 5000 mm.

43. The method according to claim 41, wherein the elastic pad has fine perforations for retaining the panel element on the convex curved panel element-holding surface by vacuum suction, and the fine perforations are closed when the elastic pad is elastically deformed in the pressure-splicing step.

44. An apparatus for producing a display panel for display of images, the apparatus

comprises:

a first stage for holding a panel element;

a second stage for holding another panel element;

a stage-driving device for driving at least one of the first and second stages to relatively move them closer to or away from each other with panel element-holding surfaces of the stages as opposed,

wherein at least one of the first and second stages has an elastic pad having a panel element-holding surface, and the panel element-holding surface has a convex curved face, and wherein the stage-driving device is such that when the first and second stages are relatively moved closer to each other, the panel element held by the first stage and the panel element held by the second stage are spliced under a first pressure and are further spliced under a specific second pressure higher than the first pressure.

45. The apparatus according to claim 44 which is provided with a device for positioning two panel elements to be adhered.

46. The apparatus according to claim 44,

wherein the elastic pad is formed of an elastic body having an elastic coefficient in the range of 60 kgf/cm^2 to 200 kgf/cm^2.

47. The apparatus according to claim 44, wherein the panel element-holding surface of the elastic pad is a convex curved surface which is high in its center.

48. The apparatus according to claim 44, wherein the convex curved panel element-holding surface of the elastic pad is a curved surface, which is high in one end and is gradually declined from that end to the other end.

49. The apparatus according to claim 44, wherein the convex curved panel element-holing surface of the elastic pad has a radius of curvature in the range of 2000 mm to 5000 mm.

50. The apparatus according to claim 44, wherein the elastic pad has fine perforations for retaining the panel element on the convex curved panel element-holding surface of the pad by vacuum suction, and the fine perforations are closed by the elastic deformation of the elastic pad.

51. The apparatus according to claim 44 which is provided with an exhausting device to

perform exhaustion from and pressure reduction between the first and second stages.

52. The apparatus according to claim 51, wherein the exhausting device includes an elastically deformable ring member for airtight seal which is adapted to surround the two panel elements together with the first and second stages when interposed between the stages coming closer to each other.

53. A method for adhering an adhesive sheet to a plate, the method comprising the steps of:

relatively positioning one end of a plate and one end of an adhesive sheet having through-holes; and

adhering the adhesive sheet to the plate progressively from the end to the other end of the adhesive sheet while holding the other end of the adhesive sheet as spaced away from the plate (adhering step).

54. The method according to claim 53 further including the step of applying pressure to the adhesive sheet which is carried out after or at approximately the same time as the adhering step.

55. The method according to claim 53, wherein the adhesive sheet has a thickness in the range of 5 μm to 100 μm.

56. The method according to claim 53, wherein the through-holes are circular holes having a diameter in the range of 5 μm to 50 μm.

57. The method according to claim 53, wherein the number density of the through-holes is 10 holes/cm^2 or more.

58. The method according to claim 54, wherein the volume of the through-holes is reduced by 50 % or more by applying pressure to the adhesive sheet.

59. The method according to claim 53, wherein the plate is a liquid crystal cell.

60. A method for adhering an adhesive sheet to a plate, the method comprising the steps of:

relatively positioning one end of a plate and one end of an adhesive sheet having through-holes and wound into a roll; and

rollingly moving the wound adhesive sheet from the end of the plate to the other end thereof on the plate to adhere the adhesive sheet to the plate.

61. The method according to claim 60, wherein the plate is a liquid crystal cell.

62. A method for adhering plates comprises the steps of:

relatively positioning one end of a first plate and one end of an adhesive sheet having through-holes;

adhering the adhesive sheet to the first plate from the end of the plate toward the other end thereof while holding the other end of the adhesive sheet as spaced away from the first plate (adhesive sheet adhering step); and

adhering a second plate to the adhesive sheet.

63. The method according to claim 62, wherein the adhesive sheet has a separator on a surface on other side than the side opposed to the first plate, and wherein the adhesive sheet adhering step includes the step of removing the separator from the adhesive sheet.

64. The method according to claim 62 further including the step of applying pressure to the adhesive sheet at approximately the same time as the adhesive sheet adhering step, or after the adhesive sheet adhering step and the

second plate adhering step.

65. The method according to claim 62, wherein the adhesive sheet has a thickness in the range of 5 μm to 100 μm.

66. The method according to claim 62, wherein the through-holes are circular holes having a diameter in the range of 5 μm to 50 μm.

67. The method according to claim 62, wherein the number density of the through-holes is 10 holes/cm^2 or more.

68. The method according to claim 64, wherein the volume of the through-holes is reduced by 50 % or more by applying pressure to the adhesive sheet.

69. The method according to claim 62, wherein the first plate is a liquid crystal cell.

70. A method for adhering plates comprises the steps of:

relatively positioning one end of a first plate and one end of an adhesive sheet having through-holes and wound into a roll;

rollingly moving the wound adhesive sheet on the first plate from the end of the first plate toward the other end thereof to adhere the adhesive sheet to the first plate; and

adhering a second plate to the adhesive sheet.

71. The method according to claim 70, wherein the first plate is a liquid crystal cell.

72. A method for adhering an adhesive sheet to a plate, the method comprising the steps of:

providing an adhesive sheet having a groove with an end at least extending to one side of the sheet;

adhering the adhesive sheet to a plate in such a manner that the surface of the sheet having the groove is opposed to the plate; and

applying pressure to the adhesive sheet adhered to the plate.

73. The method according to claim 72, wherein the adhesive sheet has a thickness in the range of 5 μm to 100 μm.

74. The method according to claim 72, wherein the width and depth of the groove is in the range of 5 μm to 50 μm, respectively.

75. The method according to claim 72, wherein the volume of the groove is reduced by 50 % or more by applying pressure to the adhesive sheet.

76. The method according to claim 72, wherein the plate is a liquid crystal cell.

77. A method for adhering a first plate to a second plate via an adhesive sheet, comprises the steps of:

providing an adhesive sheet having a groove on one side of the sheet, at least one end of the groove extending to one side of the sheet;

adhering the adhesive sheet to a first plate in such a manner that the surface of the sheet having the groove is opposed to the plate;

adhering a second plate to the adhesive sheet; and

applying pressure to the adhesive sheet adhered to the first plate.

78. The method according to claim 77, wherein the adhesive sheet has, on the opposite side to the one side, a groove with an end at least extending to one side of the sheet, and the adhesive sheet is pressured after the second plate is adhered to the adhesive sheet.

79. The method according to claim 77, wherein the adhesive sheet has a thickness in the range of 5 μm to 100 μm.

80. The method according to claim 77,

wherein the width and depth of the groove is in the range of 5 μm to 50 μm, respectively.

81. The method according to claim 77, wherein the volume of the groove is reduced by 50 % or more by applying pressure to the adhesive sheet.

82. The method according to claim 77, wherein the first plate is a liquid crystal cell.